

REMARKS

By this amendment, applicants have amended claim 1 to try to clarify that the key to the invention is not the anti-scaling polymer itself (i.e., item 1(A)), but the manner in which the polymer is combined with the vehicle (B) such that the polymer is released into a penultimate rinse cycle (preferably both penultimate and final, but at least penultimate). As noted at page 5, lines 16-20, that the release of anti-scaling polymer into the penultimate rinse cycle would have an unexpected beneficial effect (clearly documented by the examples) is a finding which contrasts with historic practice in the art of dosing only to the final rinse cycle.

Thus, claim 1 has been amended to clarify that the vehicle (B) is designed to release at least an effective amount of the polymer to prevent scaling (previous wording omitted the language "effective amount of the polymer" and read a bit awkwardly). Further, the paragraph about polymer being released into a penultimate rinse cycle is set off to isolate and further highlight the importance of this key step.

Finally, to again highlight the importance of vehicle (B) in delivering the vehicle to the right step, applicants have added language highlighting that the vehicle (B) is the (1) sum of all components forming the composition except for the anti-scaling polymer; or (2) on encapsulating material or other slow release protective chemical or device (supported at page 42, last paragraph). It is precisely these components or encapsulating materials etc. which define and distinguish the invention over the art to the extent that they are responsible for ensuring the polymer (A) is released into the penultimate rinse cycle.

Similarly, claim 12 has been amended to further define vehicle (B) and to highlight that the inventive method of the invention comprises charging the noted dishwashing composition to a penultimate rinse cycle of a dishwashing sequence. Claim 3 has been amended to further clarify language and note that the vehicle (B) is

designed, in addition to ensuring release into penultimate rinse cycle, to additionally further permit release into the final rinse cycle. Indeed as noted on page 5, a preferred embodiment of the invention contemplates the presence of scale inhibitor in both penultimate and final rinse cycles, especially when present at comparable levels.

Finally, claim 7 has been amended to read "aliphatic acids" and provide antecedent basis for claim 8.

Applicants believe rewording of claims 1 and 12 and amendment of claim 7 should overcome the various rejections under 35 U.S.C. §112 and it is respectfully requested these be withdrawn in this regard.

At page 3 of the Office Action, the Examiner has rejected claims 1 through 12 under 35 U.S.C. §102(b) over EP 851,022. Zhou is said to disclose the same scale inhibiting polymers of claim 1 (A) and Zhou is further said to disclose various ingredients found in dishwashing compositions, particularly rinse aid compositions used in dishwashing machine rinse cycles. This rejection is respectfully traversed for reasons set forth below.

As discussed above, applicants invention is not directed to the anti-scaling polymer itself, but rather to a combination composition which uses and has specifically designed a vehicle component (B) which is specifically intended to deliver the polymer to a penultimate rinse cycle step.

Zhou does not disclose the delivery of such anti-scaling polymer to the penultimate rinse cycle step and, to the extent it provides no teaching of the advantages which would be provided if the polymer is delivered at the stage, certainly does not suggest to do so. It is not until after applicant had conducted the tests and measured the results (see page 47-48) that the benefits were observed. It is of course not permissible under the patent laws to use such hindsight reasoning.

It short, Zhou fails to teach or suggest compositions designed to release polymers wherein the polymer is released into a penultimate rinse cycle. Applicants have discovered that doing so has strong advantages and have provided a clear showing of such advantageous results.

In view of the amendments and disclosures above, it is respectfully requested that the Examiner withdraw the rejection over Zhou et al.

At page 4, the Examiner has rejected the claims over U.S. Patent No. 5,958,355 to Binstock et al. Again the reference is said to disclose the polymer (A) of the invention and similar detergent adjuvants.

As with the Zhou reference, the Binstock patent fails to teach or to suggest compositions designed to release polymer wherein the vehicle is specifically prepared to release the polymer into a penultimate rinse cycle. Applicants claims are thus both novel as well as unobvious as clearly illustrated by the strong advantages (i.e. in glass film scoring) noted when the compositions are used.

For reasons noted above, applicants also believe claims of the patent application (directed to release in penultimate rinse cycle) are novel and unobvious over U.S. Patent No. 6,210,6000 (for which a double patenting type of objection has been raised). However, if the Examiner disagrees, if the Examiner indicates that the claims are allowable over other cited art, applicants are prepared to file a suitable Terminal Disclaimer upon indication of such subject matter.

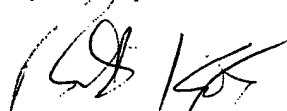
In view of the amendments and discussions above, it is respectfully requested that the Examiner withdraw the rejection of the claims and that claims 1 through 12, as amended, be allowed.

If a telephone conference would be of assistance in advancing the prosecution of this application, applicant's undersigned attorney invites the Examiner to telephone him at the number provided.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attachment is captioned "Version With Markings To Show Changes Made".

In view of the foregoing amendments and remarks, early favorable action is solicited.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend the claims as follows:

1. (Amended) A mechanical dishwashing composition comprising:

(A) an anti-scaling polymer formed from

(i) 50 to 99% by weight of the polymer of an olefinically unsaturated carboxylic monomer;

(ii) 1 to 50% of at least one monomer unit selected from the group consisting of copolymerizable sulfonated monomers, copolymerizable nonionic monomers and mixtures thereof;

(B) 0.1 to 99.9% of a vehicle designed to release ~~releasing~~ at least an effective amount of the polymer to prevent scaling ~~of the polymer~~;

wherein said polymer is released into a penultimate rinse cycle of a dishwashing sequence ~~to prevent scaling~~;

wherein said vehicle of (B) is defined as (1) the sum of all components forming said composition except for said antiscaling polymer; or (2) an encapsulating material or other slow release protective chemical or device.

3. (Amended) The composition according to claim 1 ~~further comprising~~ wherein said vehicle is designed to further release ~~releasing~~ at least an effective amount ~~to prevent~~ scaling of the polymer into a final rinse of the dishwashing cycle ~~to prevent scaling~~.

7. (Amended) The composition according to claim 1 wherein the olefinically unsaturated carboxylic monomer is in acid or salt form selected from the group consisting of aliphatic acids, monocarboxylic acids, dicarboxylic acids, polycarboxylic acids and mixtures thereof.

12. (Amended) A method for washing soiled dishes comprising charging a mechanical dishwashing composition to a wash liquor in a washing machine, the composition comprising:

(A) an anti-scaling polymer formed from

(i) 50- to 99% by weight of the polymer of an olefinically unsaturated carboxylic acid monomer;

(ii) 1 to 50% of at least one monomer unit selected from the group consisting of copolymerizable sulfonated monomers, copolymerizable nonionic monomers and mixtures thereof;

(B) 0.1 to 99.9% of a vehicle designed to release ~~releasing~~ at least an effective amount of the polymer to prevent scaling ~~of the polymer into a penultimate rinse cycle of a dishwashing sequence to prevent scaling;~~

wherein said vehicle of B is defined as (1) the sum of all components forming said composition except for said anti-scaling polymer; or (2) an encapsulating material or other slow release protective chemical or device;

wherein said method comprises changing said dishwashing composition to a penultimate rinse cycle of a dishwashing sequence.